

## **INSTRUCTIONS FOR “TURBIDITY, DISINFECTION AND CT” FORM**

1. In the Heading Area of the form, enter: <sup>1)</sup> the **Name** of the system, <sup>2)</sup> **Address**, <sup>3)</sup> **City**, <sup>4)</sup> public water supply **ID Number** and <sup>5)</sup> the **Month** and **Year**. The report is to be **Signed** and **Dated** by the person in responsible charge of the plant. **Return** the completed form no later than the **10th Day** following the end of the month.
2. In Column A, enter the daily minimum distribution system <sup>1)</sup>**Disinfectant Residual**. Also note whether the residual is <sup>2)</sup> *free chlorine (F)* or *combined chlorine (C)*, and specify <sup>3)</sup>**Number of Residual Readings** that were taken that day.
3. In Column B, enter <sup>1)</sup>**Lowest Concentration** of disinfectant residual leaving the facility at any time during the 24 hour day. Indicate whether the residual is <sup>2)</sup> *Free Chlorine (F)* or *Combined Chlorine (C)*, and specify <sup>3)</sup> **Number of Residual Readings** that were taken that day.
4. In Column C, enter the **Highest Combined Filter Effluent (CFE) Turbidity Measurement** recorded during the 24-hour day. If this reading exceeds 1.0 NTU, notify KDHE within 24 hours or by the end of the next business day.
5. In Column D, enter the **Number of CFE Turbidity Measurements** taken during the 24-hour day. The regulations require that measurements be taken at least every 4 hours of plant operation unless the population served is less than 500 persons, then daily sampling is allowed.
6. In Column E, enter the number of turbidity readings which **Exceed 0.3 NTU** during the 24-hour day.
7. In Column F, calculate the plant **CT Ratio** for the indicated 24-hour day by dividing the CT result by the CT required (CT<sub>99</sub>) to get CT available. Total the CT available for the treatment segments to get the plant CT available (**CT Ratio**) value for the day. For help with this calculation, call the Public Water Supply Section at (785) 296-5516.
8. At the bottom of page 2, below Column D and Column E, **Add the Numbers** and enter the totals in their boxes.
9. In the Percent of NTU...in Compliance box, calculate the **Percentage of CFE Turbidity Readings** which are less than or equal 0.3 NTU for the month. This is the total of Column D, minus total of Column E, result divided by total of Column D.
10. Use Comment lines for: <sup>1)</sup> date of **Sanitary Survey**, <sup>2)</sup> date **State** was **Contacted**, or <sup>3)</sup> dates, time and duration of any **Treatment Technique Failures or Violations**. ☒ Check any dates on which bacteriological compliance samples were collected. **Systems are required to report that continuous monitoring of each individual filter was completed. Even when there are no problems, the check box stating that “the Individual Filter Effluent (IFE) was monitored and recorded every 15 minutes as required” must be marked. If the IFE turbidity was not monitored, identify what filters were not monitored and/or recorded and an explanation for the violation. For scenarios requiring additional IFE monitoring data to be reported to KDHE, please see the reverse side of these instructions.**

Individual Filter Effluent (IFE) Follow-up Actions		
<b>If the IFE turbidity at the same filter* is:</b>	<b>Then:</b>	
> 1.0 NTU in 2 consecutive recordings 15 minutes apart:	Report the filter number(s), date(s), turbidity values(s), and cause (if known) to KDHE by the 10 <sup>th</sup> of the following month.	
<b>If a system has a repeat exceedance:</b>	<b>Then, in addition to reporting to the State the information regarding the initial exceedance above, the system must:</b>	
> 1.0 NTU in 2 consecutive recordings 15 minutes apart at the same filter for <b>3 months in a row</b> :	Conduct a filter self-assessment within 14 days. (Systems with 2 filters that monitor Combined Filter Effluent must conduct a self-assessment on both filters.)	Report to the State by the 10 <sup>th</sup> of the following month: <ul style="list-style-type: none"> <li>• Date the self-assessment was triggered; and</li> <li>• Date completed.</li> </ul> (If the self-assessment was triggered during the last four days of the month, the system must report within 14 days.)
> 2.0 NTU in 2 consecutive recordings 15 minutes apart at the same filter for <b>2 months in a row</b> :	Arrange for a comprehensive performance evaluation (CPE) conducted by the State or a State-approved third party within 60 days.	Report to the State by the 10 <sup>th</sup> of the following month: <ul style="list-style-type: none"> <li>• Date the CPE is required;</li> <li>• Date triggered.</li> </ul> (Submit as copy of the completed CPE report to the State within 120 days after the exceedance.)

\*Or combined filter effluent for systems with two or fewer filters if continuously monitored.

### **WHAT IS A FILTER SELF-ASSESSMENT?**

If your system exceeds 1.0 NTU in two consecutive recordings 15 minutes apart at the same filter for three months in a row, your system must conduct a self-assessment of the filter(s) within 14 days of the exceedance occurring in the third month. Systems with 2 filters that monitor combined filter effluent instead of individual filters must conduct a self-assessment on both filters. The self-assessment must consist of at least the following:

- Assessment of filter performance;
- Development of a filter profile;
- Identification and prioritization of factors limiting filter performance;
- Assessment of the applicability of corrections;
- Preparation of a filter self-assessment report;
- Date self-assessment was triggered; and
- Date self-assessment was completed.